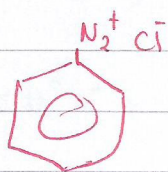


50%
Final

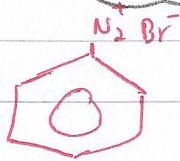
Lec 10

43

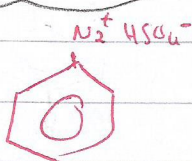
Arene Diazonium Salts



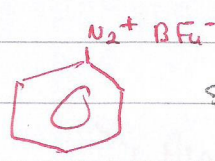
Benzenediazonium
Chloride



Benzenediazonium
bromide



Benzenediazonium
hydrogen sulphate

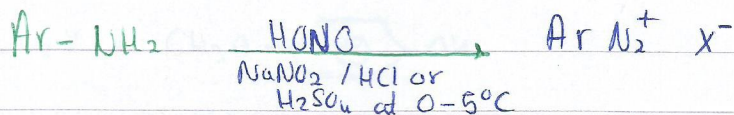


Benzenediazonium
fluoroborate

stable

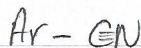
Diazonium salts are unstable except fluoroborate

Preparation of

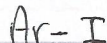
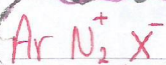
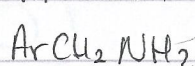
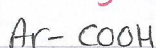


Reactions of

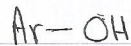
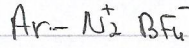
A) Displacement (+ N₂↑) (NH₂ is a very strong base)



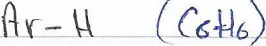
Sandmeyer reactions



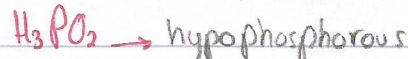
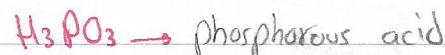
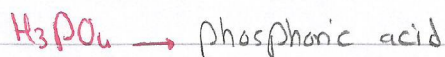
Schiemann



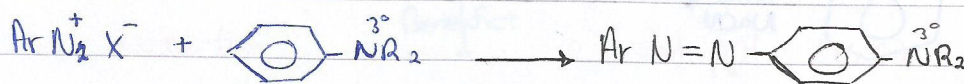
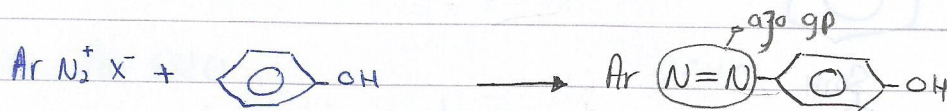
H₂O



Deamination



B) Coupling (N_2 retained)

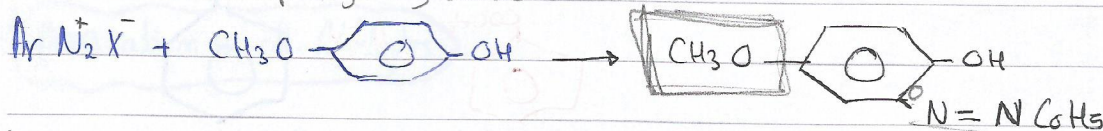


> Azo dyes

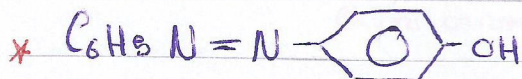
Strong E^+ (X^+ , NO_2^+ , SO_3^+ , R^+ , RCO^+)

Weak E^+ ($Ar N_2^+$, N^+O nitrosonium ion, $Ti^+(OCO(CF_3)_2)_2$)

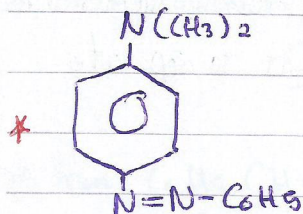
p-hydroxy anisole



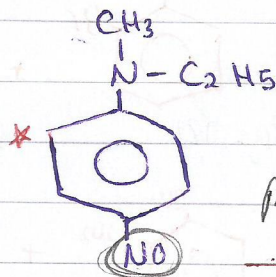
(Coupling occurs in (p)) but if p-site is blocked it'll occur at o-site



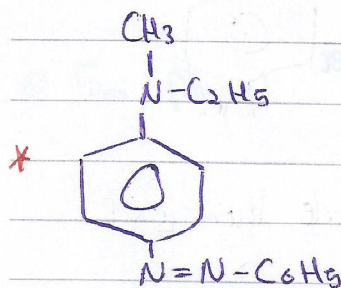
p-(phenylazo) phenol



p-(phenylazo) N,N-dimethyl aniline

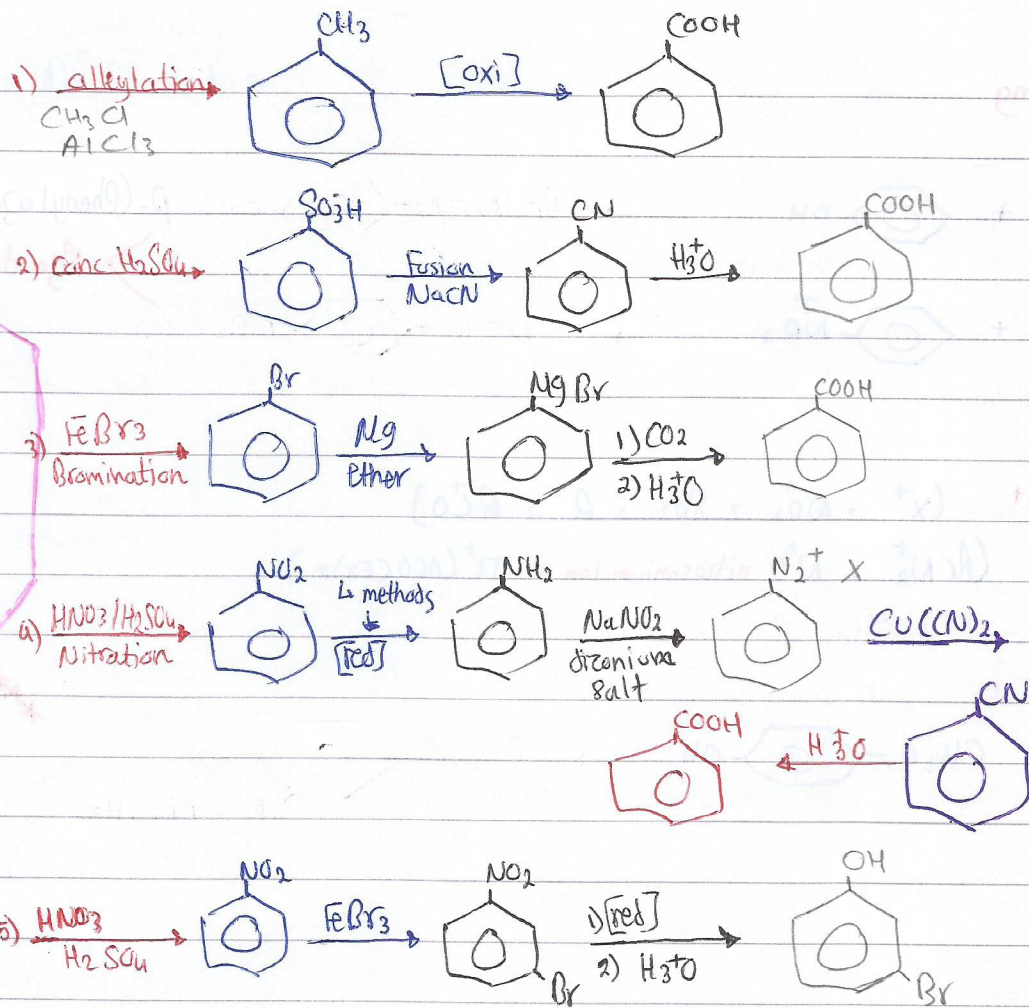


p-(nitrozo) n-ethyl-n-methyl aniline



p-(phenylazo) n-ethyl-n-methyl aniline

V.I Final exam



VI Final exam

